We Claim:

1. An apparatus through which a substrate is transferred between a first vacuum chamber and a second vacuum chamber, wherein said first vacuum chamber is maintained at a high temperature relative to a temperature maintained within said second vacuum chamber, said second vacuum chamber including a port; said apparatus comprising:

a passageway for receiving said substrate; and

a thermally isolating interface that reduces heat transfer from said first vacuum chamber to said second vacuum chamber, said thermally isolating interface allowing for transfer of said substrate between said apparatus and said second vacuum chamber, said thermally isolating interface having a face with a border disposed on said face, the border defining a hole in said thermally isolating interface having dimensions such that said substrate is transferable through said thermally isolating interface;

wherein said thermally isolating interface is made of a metal having a thermal conductivity coefficient of less than about 1536 Btu inch/(hr)(ft^2)(°F);

wherein said first vacuum chamber, said apparatus, and said second chamber are sealed together to form a closed environment having an internal pressure that is less than standard atmospheric pressure; and

wherein said face includes a beveled recess such that, when said face abuts said port, a thermally isolating volume is defined within said recess.

2. The apparatus of claim 1 wherein said first vacuum chamber is a heat chamber or a high temperature processing chamber and said second vacuum chamber is a transfer chamber.

3. The apparatus of claim 1 wherein said thermally isolating interface comprises stainless steel.

4. The apparatus of claim 1 wherein said thermally isolating interface comprises stainless steel having a thermal conductivity coefficient of about 106 Btu inch/(hr)(ft^2)(°F).

5. The apparatus of claim 1 wherein said thermally isolated volume is occupied by a composition having a thermal conductivity coefficient of less than about 1200 Btu inch/(hr)(ft^2)(°F).

6. The apparatus of claim 5 wherein said composition is air or an insulating material.

7. The apparatus of claim 1 wherein said passageway further comprises a heating element for maintaining said apparatus at a temperature that is proximate to said high temperature.

8. The apparatus of claim 7 wherein said passageway further comprises a heat distribution mechanism for distributing heat generated by said heating element.

9. The apparatus of claim 8 wherein said heat distribution mechanism includes a reflective surface.

10. The apparatus of claim 9 wherein said heat distribution mechanism includes a parabolic mirror.

11. The apparatus of claim 1 wherein said substrate is a semiconductor substrate or a glass substrate.

12. An apparatus through which a substrate is transferred between a first vacuum chamber and a second vacuum chamber, wherein said first vacuum chamber is maintained at a high temperature relative to a temperature maintained within said second vacuum chamber, said second vacuum chamber including a port; said apparatus comprising:

a thermally isolating interface that reduces heat transfer from said first vacuum chamber to said second vacuum chamber, said thermally isolating interface allowing for transfer of said substrate between said apparatus and said second vacuum chamber, said thermally isolating interface having a face with a border disposed on said face, the border defining a hole in said thermally isolating interface having dimensions such that said substrate is transferable through said thermally isolating interface;

wherein said thermally isolating interface is made of a metal having a thermal conductivity coefficient of less than about 1536 Btu inch/(hr)(ft^2)(°F);

wherein said first vacuum chamber, said apparatus, and said second chamber are sealed together to form a closed environment having an internal pressure that is less than standard atmospheric pressure; and

wherein said face includes a beveled recess such that, when said face abuts said port, a thermally isolating volume is defined within said recess.

13. The apparatus of claim 12 wherein said first vacuum chamber is a heat chamber or a high temperature processing chamber and said second vacuum chamber is a transfer chamber.

14. The apparatus of claim 12 wherein said thermally isolated volume is occupied by a composition having a thermal conductivity coefficient of less than about 1200 Btu inch/(hr)(ft^2)(°F).

15. An apparatus through which a substrate is transferred between a first vacuum chamber and a second vacuum chamber, wherein said first vacuum chamber is maintained at a high temperature relative to a temperature maintained within said second vacuum chamber, said second vacuum chamber including a port; said apparatus comprising:

a thermally isolating interface that reduces heat transfer from said first vacuum chamber to said second vacuum chamber, said thermally isolating interface allowing for transfer of said substrate between said apparatus and said second vacuum chamber, said thermally isolating interface having a face with a border disposed on said face, the border defining a hole in said thermally isolating interface having dimensions such that said substrate is transferable through said thermally isolating interface;

wherein said first vacuum chamber, said apparatus, and said second chamber are sealed together to form a closed environment having an internal pressure that is less than standard atmospheric pressure; and

wherein said face includes a beveled recess such that, when said face abuts said port, a thermally isolating volume is defined within said recess.